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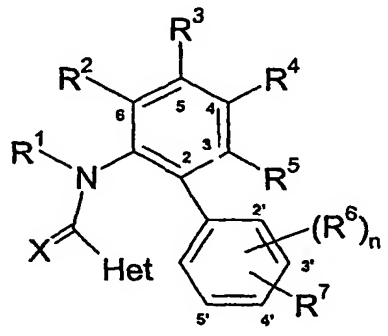
(54) Title: BIPHENYL DERIVATIVES AND THEIR USE AS FUNGICIDES



(I)

(57) Abstract: A fungicidally active compound of formula (I): where Het is a substituted 5- or 6-membered heterocyclic ring; R^1 is hydrogen, formyl, CO-C_{1-4} alkyl, COO-C_{1-4} alkyl, C_{1-4} alkoxy(C_{1-4})alkylene, CO-C_{1-4} alkylenoxy(C_{1-4})alkyl, propargyl or allenyl; R^2, R^3, R^4 and R^5 are each, independently, hydrogen, halogen, methyl or CF_3; each R^6 is, independently, halogen, methyl or CF_3; R^7 is $(Z)_mC{=}C(Y^1)$, $(Z)_mC(Y^1){=}C(Y^2)(Y^3)$ or tri(C_{1-4})alkylsilyl; X is O or S; Y^1, Y^2 and Y^3 are each, independently, hydrogen, halogen, C_{1-6} alkyl [optionally substituted by one or more substituents each independently selected from halogen, hydroxy, C_{1-4} alkoxy, C_{1-4} haloalkoxy, C_{1-4} alkylthio, C_{1-4} haloalkylthio, C_{1-4} alkylamino, di(C_{1-4})alkylamino, C_{1-4} alkoxycarbonyl, C_{1-4} alkylcarbonyloxy and tri(C_{1-4})alkylsilyl], C_{2-4} alkenyl [optionally substituted by one or more substituents each independently selected from halogen], C_{2-4} alkynyl [optionally substituted by one or more substituents each independently selected from halogen], C_{3-7} cycloalkyl [optionally substituted by one or more substituents each independently selected from halogen, C_{1-4} alkyl and C_{1-4} haloalkyl] or tri(C_{14})alkylsilyl; Z is C_{1-4} alkylene [optionally substituted by one or more substituents each independently selected from hydroxy, cyano, C_{1-4} alkoxy, halogen, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} alkylthio, COOH and COO-C_{1-4} alkyl]; m is 0 or 1; and n is 0, 1 or 2; the invention also relates to novel intermediates used in the preparation of these compounds, to agrochemical compositions which comprise at least one of the novel compounds as active ingredient and to the use of the active ingredients or compositions in agriculture or horticulture for controlling or preventing infestation of plants by phytopathogenic microorganisms, preferably fungi.

Hal	R^2	R^3	R^4	R^7
Cl	Cl	H	H	$C(CH_3)=CH-CH_2-OH$
Br	H	Me	H	$C(CF_3)=CF_2$
Br	H	Me	Br	$C(CF_3)=CF_2$
Cl	H	H	H	C::CH
Cl	H	H	H	$CH=CH-CH_2-CH_2-OH$
Cl	H	H	H	$C(CH_3)=CH-CH_2-OH$
Cl	H	H	H	$C(CH_3)=CH-C(=O)-OC_2H_5$
Cl	H	H	H	$C(CH_3)=CH-CH(OH)CH_3$
Cl	H	H	H	$CH=CH-CH(OH)CH_3$

Therefore, in a further aspect the present invention provides a compound of formula (III), where R^2, R^3, R^4, R^5, R^6, R^7 and n are as defined above for a compound of formula (I) and Hal is bromo, chloro or iodo; provided that the compound is not a compound of formula (IIIa) according to Table 0.

The preferred values for R^2, R^3, R^4, R^5, R^6, R^7 and n for a compound of formula (III) are as defined above for a compound of formula (I).

Preferably Hal is bromo or chloro.

More preferably Hal is bromo.

The compounds of formulae (I), (II) and (III) may exist as different geometric or optical isomers or in different tautomeric forms. For each formula, this invention covers all such isomers and tautomers and mixtures thereof in all proportions as well as isotopic forms such as deuterated compounds.

The compounds in Tables 1 to 13 below illustrate compounds of the invention.

Table 1

Compound No.	R^1	R^7	R^8	R^9	R^{10}	X
1.01	H	C::CH	H	Me	CF_3	O
1.02	H	C::CH	H	Me	CF_3	S
1.03	H	C::CH	H	Me	CF_2H	O
1.04	propargyl	C::CH	H	Me	CF_3	O
1.05	H	C::CH	F	Me	Me	O
1.06	H	C::CH	H	CH_2OMe	CF_3	O

1.07	allenyl	C::CH	H	Me	CF_3	O
1.08	H	C::$CSiMe_3$	H	Me	CF_3	O
1.09	H	C::$CSiMe_3$	H	Me	CF_3	S
1.10	H	C::$CSiMe_3$	H	Me	CF_2H	O
1.11	H	C::$CSiMe_3$	F	Me	Me	O
1.12	H	C::CCl	H	Me	CF_3	O
1.13	H	C::CCl	H	Me	CF_2H	O
1.14	H	C::CCl	F	Me	Me	O
1.15	H	C::CBr	H	Me	CF_3	O
1.16	H	C::CBr	H	Me	CF_2H	O
1.17	H	C::CBr	F	Me	Me	O
1.18	H	C::CCF_3	H	Me	CF_3	O
1.19	H	C::CCF_3	H	Me	CF_2H	O
1.20	H	C::CCF_3	F	Me	Me	O
1.21	allenyl	C::CCF_3	H	Me	CF_3	O
1.22	H	$CH=CH_2$	H	Me	CF_3	O
1.23	H	$CH=CH_2$	H	Me	CF_3	S
1.24	H	$CH=CH_2$	H	Me	CF_2H	O
1.25	propargyl	$CH=CH_2$	H	Me	CF_3	O
1.26	H	$CH=CH_2$	F	Me	Me	O
1.27	H	$CH=CH_2$	H	CH_2OMe	CF_3	O
1.28	allenyl	$CH=CH_2$	H	Me	CF_3	O
1.29	H	$CH=CF_2$	H	Me	CF_3	O
1.30	H	$CH=CF_2$	H	Me	CF_2H	O
1.31	H	$CH=CF_2$	F	Me	Me	O
1.32	H	$CH=CCl_2$	H	Me	CF_3	O
1.33	H	$CH=CCl_2$	H	Me	CF_2H	O
1.34	H	$CH=CCl_2$	F	Me	Me	O
1.35	H	$CH=CBr_2$	H	Me	CF_3	O

1.36	H	$CH=CBr_2$	H	Me	CF_2H	O
1.37	H	$CH=CBr_2$	F	Me	Me	O
1.38	H	$CF=CF_2$	H	Me	CF_3	O
1.39	H	$CF=CF_2$	H	Me	CF_2H	O
1.40	H	$CF=CF_2$	F	Me	Me	O
1.41	H	$CCl=CH_2$	H	Me	CF_3	O
1.42	H	$CCl=CH_2$	H	Me	CF_2H	O
1.43	H	$CCl=CH_2$	F	Me	Me	O
1.44	H	$CBr=CH_2$	H	Me	CF_3	O
1.45	H	$CBr=CH_2$	H	Me	CF_2H	O
1.46	H	$CBr=CH_2$	F	Me	Me	O
1.47	H	CF=CHF	H	Me	CF_3	O
1.48	H	CF=CHF	H	Me	CF_2H	O
1.49	H	CF=CHF	F	Me	Me	O
1.50	H	$CH=CHSiMe_3$	H	Me	CF_3	O
1.51	H	$CH=CHSiMe_3$	H	Me	CF_2H	O
1.52	H	$CH=CHSiMe_3$	F	Me	Me	O
1.53	H	$CH=CHCF_3$	H	Me	CF_3	O
1.54	H	$CH=CHCF_3$	H	Me	CF_2H	O
1.55	H	$CH=CHCF_3$	F	Me	Me	O
1.56	H	$CH=CClCF_3$	H	Me	CF_3	O
1.57	H	$CH=CClCF_3$	H	Me	CF_2H	O
1.58	H	$CH=CClCF_3$	F	Me	Me	O
1.59	H	$CH_2C::CH$	H	Me	CF_3	O
1.60	H	$CH_2C::CH$	H	Me	CF_2H	O
1.61	H	$CH_2C::CH$	F	Me	Me	O
1.62	H	$CH_2C::CH$	H	CH_2OMe	CF_3	O
1.63	H	$CH_2C::CSiMe_3$	H	Me	CF_3	O
1.64	H	$CH_2C::CSiMe_3$	H	Me	CF_2H	O

1.65	H	$CH_2C::CSiMe_3$	F	Me	Me	O
1.66	H	$C::CCMe_3$	H	Me	CF_3	O
1.67	H	$C::CCMe_3$	H	Me	CF_2H	O
1.68	H	$C::CCMe_3$	F	Me	Me	O
1.69	H	C::CMe	H	Me	CF_3	O
1.70	H	C::CMe	H	Me	CF_2H	O
1.71	H	C::CMe	F	Me	Me	O
1.72	COMe	C::CH	H	Me	CF_3	O
1.73	H	C::CH	H	CF_2H	CF_2H	O
1.74	H	C::CH	H	CF_2H	CF_3	O
1.75	H	C::CH	H	Me	CH_2F	O
1.76	H	$C::CSiMe_3$	H	Me	CH_2F	O
1.77	H	C::C(cyclopropyl)	H	Me	CF_3	O
1.78	H	C::C(cyclopropyl)	H	Me	CHF_2	O
1.79	H	$SiMe_3$	H	Me	CH_2F	O
1.80	H	$SiMe_3$	H	Me	CF_3	O
1.81	H	$SiMe_3$	H	Me	CHF_2	O
1.82	H	C::CF	H	Me	CF_3	O
1.83	H	C::CF	H	Me	CF_2H	O
1.84	H	C::CF	F	Me	Me	O
1.85	H	$C::CCF_2Cl$	H	Me	CF_3	O
1.86	H	$C::CCF_2Cl$	H	Me	CF_2H	O
1.87	H	$C::CCF_2Cl$	F	Me	Me	O
1.88	H	$C::CCF_2H$	H	Me	CF_3	O
1.89	H	$C::CCF_2H$	H	Me	CF_2H	O
1.90	H	$C::CCF_2H$	F	Me	Me	O
1.91	H	$C::CCF_2Br$	H	Me	CF_3	O
1.92	H	$C::CCF_2Br$	H	Me	CF_2H	O
1.93	H	$C::CCF_2Br$	F	Me	Me	O

1.94	H	C::CCH_2F	H	Me	CF_3	O
1.95	H	C::CCH_2F	H	Me	CF_2H	O
1.96	H	C::CCH_2F	F	Me	Me	O
1.97	H	C::CCH(Me)F	H	Me	CF_3	O
1.98	H	C::CCH(Me)F	H	Me	CF_2H	O
1.99	H	C::CCH(Me)F	F	Me	Me	O
1.100	H	C::$CC(Me)_2F$	H	Me	CF_3	O
1.101	H	C::$CC(Me)_2F$	H	Me	CF_2H	O
1.102	H	C::$CC(Me)_2F$	F	Me	Me	O
1.103	H	C::$CCH_2C(Me)_3$	H	Me	CF_3	O
1.104	H	C::$CCH_2C(Me)_3$	H	Me	CF_2H	O
1.105	H	C::$CCH_2C(Me)_3$	F	Me	Me	O
1.106	H	C::$CCH(Me)_2$	H	Me	CF_3	O
1.107	H	C::$CCH(Me)_2$	H	Me	CF_2H	O
1.108	H	C::$CCH(Me)_2$	F	Me	Me	O
1.109	H	C::$CCH_2CH(Me)_2$	H	Me	CF_3	O
1.110	H	C::$CCH_2CH(Me)_2$	H	Me	CF_2H	O
1.111	H	C::$CCH_2CH(Me)_2$	F	Me	Me	O
1.112	H	CH_2C::$CCMe_3$	H	Me	CF_3	O
1.113	H	CH_2C::$CCMe_3$	H	Me	CF_2H	O
1.114	H	CH_2C::$CCMe_3$	F	Me	Me	O
1.115	H	CF_2C::$CCMe_3$	H	Me	CF_3	O
1.116	H	CF_2C::$CCMe_3$	H	Me	CF_2H	O
1.117	H	CF_2C::$CCMe_3$	F	Me	Me	O
1.118	H	CF_2C::CMe	H	Me	CF_3	O
1.119	H	CF_2C::CMe	H	Me	CF_2H	O
1.120	H	CF_2C::CMe	F	Me	Me	O
1.121	H	CF_2C::CH	H	Me	CF_3	O

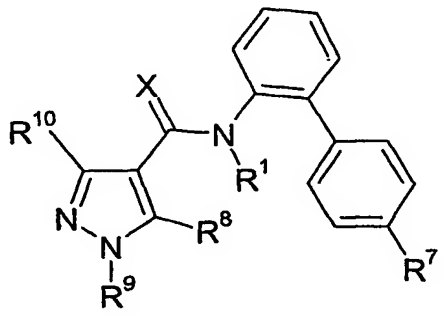
1.122	H	$CF_2C::CH$	H	Me	CF_2H	O
1.123	H	$CF_2C::CH$	F	Me	Me	O
1.124	H	$CMe_2C::CH$	H	Me	CF_3	O
1,125	H	$CMe_2C::CH$	H	Me	CF_2H	O
1.126	H	$CMe_2C::CH$	F	Me	Me	O
1.127	H	CHFC::CH	H	Me	CF_3	O
1.128	H	CHFC::CH	H	Me	CF_2H	O
1.129	H	CHFC::CH	F	Me	Me	O
1.130	H	CHMeC::CH	H	Me	CF_3	O
1.131	H	CHMeC::CH	H	Me	CF_2H	O
1.132	H	CHMeC::CH	F	Me	Me	O
1.133	H	$CH(CF_3)C::CH$	H	Me	CF_3	O
1.134	H	$CH(CF_3)C::CH$	H	Me	CF_2H	O
1.135	H	$CH(CF_3)C::CH$	F	Me	Me	O
1.136	H	C::C (1-F-cyclopentyl)	H	Me	CF_3	O
1.137	H	C::C (1-F-cyclopentyl)	H	Me	CHF_2	O
1.138	H	$C::CCH_2OMe$	H	Me	CF_3	O
1.139	H	$C::CCH_2OMe$	H	Me	CF_2H	O
1.140	H	$C::CCH_2OMe$	F	Me	Me	O
1.141	H	$C::CCMe_2OMe$	H	Me	CF_3	O
1.142	H	$C::CCMe_2OMe$	H	Me	CF_2H	O
1.143	H	$C::CCMe_2OMe$	F	Me	Me	O
1.144	H	$C::CCMe_2OCOMe$	H	Me	CF_3	O
1.145	H	$C::CCMe_2OCOMe$	H	Me	CF_2H	O
1.146	H	$C::CCF_2Me$	H	Me	CF_3	O
1.147	H	$C::CCF_2Me$	H	Me	CF_2H	O
1.148	H	$C::CCF_2Me$	F	Me	Me	O
1.149	H	$C::CC(Me)=CH_2$	H	Me	CF_3	O

1.150	H	C::CC(Me)=CH_2	H	Me	CF_2H	O
1.151	H	CH=CFCl	H	Me	CF_3	O
1.152	H	CH=CFCl	H	Me	CF_2H	O
1.153	H	CH=CFCl	F	Me	Me	O
1.154	H	CH=CFBr	H	Me	CF_3	O
1.155	H	CH=CFBr	H	Me	CF_2H	O
1.156	H	CH=CFBr	F	Me	Me	O
1.157	H	CH=CHBr	H	Me	CF_3	O
1.158	H	CH=CHBr	H	Me	CF_2H	O
1.159	H	CH=CHBr	F	Me	Me	O
1.160	H	CH=CHF	H	Me	CF_3	O
1.161	H	CH=CHF	H	Me	CF_2H	O
1.162	H	CH=CHF	F	Me	Me	O
1.163	H	CMe=$CHCF_3$	H	Me	CF_3	O
1.164	H	CMe=$CHCF_3$	H	Me	CF_2H	O
1.165	H	CMe=$CHCF_3$	F	Me	Me	O
1.166	H	CH=$CFCF_3$	H	Me	CF_3	O
1.167	H	CH=$CFCF_3$	H	Me	CF_2H	O
1.168	H	CH=$CFCF_3$	F	Me	Me	O
1.169	H	CH=$CBrCF_3$	H	Me	CF_3	O
1.170	H	CH=$CBrCF_3$	H	Me	CF_2H	O
1.171	H	CH=$CBrCF_3$	F	Me	Me	O
1.172	H	CH=CHC_2F_5	H	Me	CF_3	O
1.173	H	CH=CHC_2F_5	H	Me	CF_2H	O
1.174	H	CH=CHC_2F_5	F	Me	Me	O
1.175	H	CH=CHCl	H	Me	CF_3	O
1.176	H	CH=CHCl	H	Me	CF_2H	O
1.177	H	CH=CHCl	F	Me	Me	O
1.178	H	CH=$C(CF_3)_2$	H	Me	CF_3	O
1.179	H	CH=$C(CF_3)_2$	H	Me	CF_2H	O

1.240	H	$CH_2CH=CF_2$	F	Me	Me	O
1.241	H	$CH_2CH=CCl_2$	H	Me	CF_3	O
1.242	H	$CH_2CH=CCl_2$	H	Me	CF_2H	O
1.243	H	$CH_2CH=CCl_2$	F	Me	Me	O
1.244	H	$CH_2CH=CBr_2$	H	Me	CF_3	O
1.245	H	$CH_2CH=CBr_2$	H	Me	CF_2H	O
1.246	H	$CH_2CH=CBr_2$	F	Me	Me	O
1.247	H	$CCl=CF_2$	H	Me	CF_3	O
1.248	H	$CCl=CF_2$	H	Me	CF_2H	O
1.249	H	$CCl=CF_2$	F	Me	Me	O
1.250	H	$C::CCMe_2OH$	H	Me	CF_3	O
1.251	H	$C::CCMe_2OH$	H	Me	CF_2H	O
1.252	H	$C::CSi(Me_2)CMe_3$	H	Me	CF_3	O
1.253	H	$C::CSi(Me_2)CMe_3$	H	Me	CF_2H	O
1.254	H	$C::CCH_2SiMe_3$	H	Me	CF_3	O
1.255	H	$C::CCH_2SiMe_3$	H	Me	CF_2H	O
1.256	H	$C::CCH_2SiMe_3$	F	Me	Me	O
1.257	H	$C::CCMe_3$	H	CF_2H	CF_3	O
1.258	H	$C::CCH_2CF_3$	H	Me	CF_3	O
1.259	H	$C::CCH_2CF_3$	H	Me	CF_2H	O
1.260	H	$C::CCH_2CF_3$	F	Me	Me	O
1.261	H	$C::CCMe_3$	H	CF_2H	CF_2H	O
1.262	H	$C::CCH_2CH_3$	H	Me	CF_3	O
1.263	H	$C::CCH_2CH_3$	H	Me	CF_2H	O
1.264	H	$C::CCH_2CH_3$	F	Me	Me	O
1.265	H	$C::CCF=CF_2$	H	Me	CF_3	O
1.266	H	$C::CCF=CF_2$	H	Me	CF_2H	O
1.267	H	C::CCHFCl	H	Me	CF_3	O
1.268	H	C::CCHFCl	H	Me	CF_2H	O

1.269	H	C::CCHFCl	F	Me	Me	O
1.270	H	$CH=CFC_2F_5$	H	Me	CF_3	O
1.271	H	$CH=CFC_2F_5$	H	Me	CF_2H	O
1.272	H	$CH=CFC_2F_5$	F	Me	Me	O
1.273	H	$C::CCF_2CH_2CH_3$	H	Me	CF_3	O
1.274	H	$C::CCF_2CH_2CH_3$	H	Me	CF_2H	O
1.275	H	$C::CCF_2CH_2CH_3$	F	Me	Me	O
1.276	H	$C::CCHFCH_2CH_3$	H	Me	CF_3	O
1.277	H	$C::CCHFCH_2CH_3$	H	Me	CF_2H	O
1.278	H	$C::CCHFCH_2CH_3$	F	Me	Me	O
1.279	H	$C::CCF(CF_3)_2$	H	Me	CF_3	O
1.280	H	$C::CCF(CF_3)_2$	H	Me	CF_2H	O
1.281	H	$C::CCF(CF_3)_2$	F	Me	Me	O
1.282	H	$CH=CClC_2F_5$	H	Me	CF_3	O
1.283	H	$CH=CClC_2F_5$	H	Me	CF_2H	O
1.284	H	$CH=CClC_2F_5$	F	Me	Me	O
1.285	H	$C::CC_2F_5$	H	Me	CF_3	O
1.286	H	$C::CC_2F_5$	H	Me	CF_2H	O
1.287	H	$C::CC_2F_5$	F	Me	Me	O

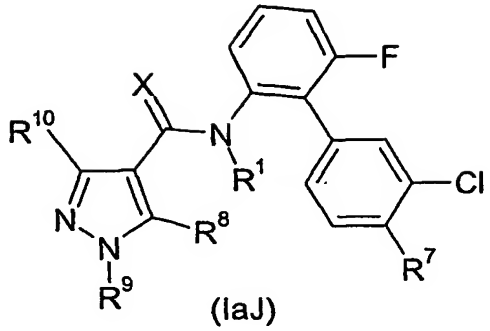
Table 1 provides 287 compounds of formula (Ia):



(Ia)

wherein R^1, R^7, R^8, R^9, R^{10} and X are as defined in Table 1.

Table 1 provides 287 compounds of formula (IaA):



(IaJ)

Table 2

Compound No.	R^1	R^7	R^8	R^9	R^{10}	X
2.01	H	C::CH	H	Me	CF_3	O
2.02	H	C::CH	H	Me	CF_3	S
2.03	H	C::CH	H	Me	CF_2H	O
2.04	propargyl	C::CH	H	Me	CF_3	O
2.05	H	C::CH	F	Me	Me	O
2.06	H	C::CH	H	CH_2OMe	CF_3	O
2.07	allenyl	C::CH	H	Me	CF_3	O
2.08	H	$C::CSiMe_3$	H	Me	CF_3	O
2.09	H	$C::CSiMe_3$	H	Me	CF_3	S
2.10	H	$C::CSiMe_3$	H	Me	CF_2H	O
2.11	H	$C::CSiMe_3$	F	Me	Me	O
2.12	H	C::CCl	H	Me	CF_3	O
2.13	H	C::CCl	H	Me	CF_2H	O
2.14	H	C::CCl	F	Me	Me	O
2.15	H	C::CBr	H	Me	CF_3	O
2.16	H	C::CBr	H	Me	CF_2H	O
2.17	H	C::CBr	F	Me	Me	O

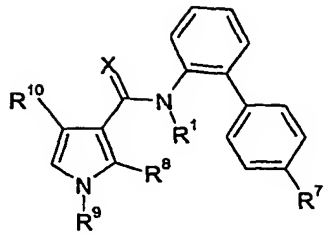
2.18	H	C::CCF_3	H	Me	CF_3	O
2.19	H	C::CCF_3	H	Me	CF_2H	O
2.20	H	C::CCF_3	F	Me	Me	O
2.21	allenyl	C::CCF_3	H	Me	CF_3	O
2.22	H	$CH=CH_2$	H	Me	CF_3	O
2.23	H	$CH=CH_2$	H	Me	CF_3	S
2.24	H	$CH=CH_2$	H	Me	CF_2H	O
2.25	propargyl	$CH=CH_2$	H	Me	CF_3	O
2.26	H	$CH=CH_2$	F	Me	Me	O
2.27	H	$CH=CH_2$	H	CH_2OMe	CF_3	O
2.28	allenyl	$CH=CH_2$	H	Me	CF_3	O
2.29	H	$CH=CF_2$	H	Me	CF_3	O
2.30	H	$CH=CF_2$	H	Me	CF_2H	O
2.31	H	$CH=CF_2$	F	Me	Me	O
2.32	H	$CH=CCl_2$	H	Me	CF_3	O
2.33	H	$CH=CCl_2$	H	Me	CF_2H	O
2.34	H	$CH=CCl_2$	F	Me	Me	O
2.35	H	$CH=CBr_2$	H	Me	CF_3	O
2.36	H	$CH=CBr_2$	H	Me	CF_2H	O
2.37	H	$CH=CBr_2$	F	Me	Me	O
2.38	H	$CF=CF_2$	H	Me	CF_3	O
2.39	H	$CF=CF_2$	H	Me	CF_2H	O
2.40	H	$CF=CF_2$	F	Me	Me	O
2.41	H	$CCl=CH_2$	H	Me	CF_3	O
2.42	H	$CCl=CH_2$	H	Me	CF_2H	O
2.43	H	$CCl=CH_2$	F	Me	Me	O
2.44	H	$CBr=CH_2$	H	Me	CF_3	O
2.45	H	$CBr=CH_2$	H	Me	CF_2H	O
2.46	H	$CBr=CH_2$	F	Me	Me	O
2.47	H	CF=CHF	H	Me	CF_3	O

2.48	H	CF=CHF	H	Me	CF_2H	O
2.49	H	CF=CHF	F	Me	Me	O
2.50	H	$CH=CHSiMe_3$	H	Me	CF_3	O
2.51	H	$CH=CHSiMe_3$	H	Me	CF_2H	O
2.52	H	$CH=CHSiMe_3$	F	Me	Me	O
2.53	H	$CH=CHCF_3$	H	Me	CF_3	O
2.54	H	$CH=CHCF_3$	H	Me	CF_2H	O
2.55	H	$CH=CHCF_3$	F	Me	Me	O
2.56	H	$CH=CClCF_3$	H	Me	CF_3	O
2.57	H	$CH=CClCF_3$	H	Me	CF_2H	O
2.58	H	$CH=CClCF_3$	F	Me	Me	O
2.59	H	$CH_2C::CH$	H	Me	CF_3	O
2.60	H	$CH_2C::CH$	H	Me	CF_2H	O
2.61	H	$CH_2C::CH$	F	Me	Me	O
2.62	H	$CH_2C::CH$	H	CH_2OMe	CF_3	O
2.63	H	$CH_2C::CSiMe_3$	H	Me	CF_3	O
2.64	H	$CH_2C::CSiMe_3$	H	Me	CF_2H	O
2.65	H	$CH_2C::CSiMe_3$	F	Me	Me	O
2.66	H	$C::CCMe_3$	H	Me	CF_3	O
2.67	H	$C::CCMe_3$	H	Me	CF_2H	O
2.68	H	$C::CCMe_3$	F	Me	Me	O
2.69	H	C::CMe	H	Me	CF_3	O
2.70	H	C::CMe	H	Me	CF_2H	O
2.71	H	C::CMe	F	Me	Me	O
2.72	COMe	C::CH	H	Me	CF_3	O
2.73	H	C::CH	H	CF_2H	CF_2H	O
2.74	H	C::CH	H	CF_2H	CF_3	O
2.75	H	C::CH	H	Me	CH_2F	O
2.76	H	$C::CSiMe_3$	H	Me	CH_2F	O

2.77	H	C::C(cyclopropyl)	H	Me	CF_3	O
2.78	H	C::C(cyclopropyl)	H	Me	CHF_2	O
2.79	H	$SiMe_3$	H	Me	CH_2F	O
2.80	H	$SiMe_3$	H	Me	CF_3	O
2.81	H	$SiMe_3$	H	Me	CHF_2	O
2.82	H	C::CF	H	Me	CF_3	O
2.83	H	C::CF	H	Me	CF_2H	O
2.84	H	C::CF	F	Me	Me	O
2.85	H	$C::CCF_2Cl$	H	Me	CF_3	O
2.86	H	$C::CCF_2Cl$	H	Me	CF_2H	O
2.87	H	$C::CCF_2Cl$	F	Me	Me	O
2.88	H	$C::CCF_2H$	H	Me	CF_3	O
2.89	H	$C::CCF_2H$	H	Me	CF_2H	O
2.90	H	$C::CCF_2H$	F	Me	Me	O
2.91	H	$C::CCF_2Br$	H	Me	CF_3	O
2.92	H	$C::CCF_2Br$	H	Me	CF_2H	O
2.93	H	$C::CCF_2Br$	F	Me	Me	O
2.94	H	$C::CCH_2F$	H	Me	CF_3	O
2.95	H	$C::CCH_2F$	H	Me	CF_2H	O
2.96	H	$C::CCH_2F$	F	Me	Me	O
2.97	H	C::CCH(Me)F	H	Me	CF_3	O
2.98	H	C::CCH(Me)F	H	Me	CF_2H	O
2.99	H	C::CCH(Me)F	F	Me	Me	O
2.100	H	$C::CC(Me)_2F$	H	Me	CF_3	O
2.101	H	$C::CC(Me)_2F$	H	Me	CF_2H	O
2.102	H	$C::CC(Me)_2F$	F	Me	Me	O
2.103	H	$C::CCH_2C(Me)_3$	H	Me	CF_3	O
2.104	H	$C::CCH_2C(Me)_3$	H	Me	CF_2H	O
2.105	H	$C::CCH_2C(Me)_3$	F	Me	Me	O

2.106	H	C::CCH(Me)$_2$	H	Me	CF_2H	O
2.107	H	C::CCH(Me)$_2$	H	Me	CF_2H	O
2.108	H	C::CCH(Me)$_2$	F	Me	Me	O
2.109	H	C::$CCH_2CH(Me)_2$	H	Me	CF_2H	O
2.110	H	C::$CCH_2CH(Me)_2$	H	Me	CF_2H	O
2.111	H	C::$CCH_2CH(Me)_2$	F	Me	Me	O
2.112	H	CH_2C::$CCMe_3$	H	Me	CF_3	O
2.113	H	CH_2C::$CCMe_3$	H	Me	CF_2H	O
2.114	H	CH_2C::$CCMe_3$	F	Me	Me	O
2.115	H	CF_2C::$CCMe_3$	H	Me	CF_3	O
2.116	H	CF_2C::$CCMe_3$	H	Me	CF_2H	O
2.117	H	CF_2C::$CCMe_3$	F	Me	Me	O
2.118	H	CF_2C::CMe	H	Me	CF_3	O
2.119	H	CF_2C::CMe	H	Me	CF_2H	O
2.120	H	CF_2C::CCMe	F	Me	Me	O
2.121	H	CF_2C::CH	H	Me	CF_3	O
2.122	H	CF_2C::CH	H	Me	CF_2H	O
2.123	H	CF_2C::CH	F	Me	Me	O
2.124	H	CMe_2C::CH	H	Me	CF_3	O
2,125	H	CMe_2C::CH	H	Me	CF_2H	O
2.126	H	CMe_2C::CH	F	Me	Me	O
2.127	H	CHFC::CH	H	Me	CF_3	O
2.128	H	CHFC::CH	H	Me	CF_2H	O
2.129	H	CHFC::CH	F	Me	Me	O
2.130	H	CHMeC::CH	H	Me	CF_3	O
2.131	H	CHMeC::CH	H	Me	CF_2H	O
2.132	H	CHMeC::CH	F	Me	Me	O
2.133	H	$CH(CF_3)$C::CH	H	Me	CF_3	O

2.134	H	$CH(CF_3)C::CH$	H	Me	CF_2H	O
2.135	H	$CH(CF_3)C::CH$	F	Me	Me	O
2.136	H	C::C (1-F-cyclopentyl)	H	Me	CF_3	O
2.137	H	C::C (1-F-cyclopentyl)	H	Me	CHF_2	O
2.138	H	$C::CCH_2OMe$	H	Me	CF_3	O
2.139	H	$C::CCH_2OMe$	H	Me	CF_2H	O
2.140	H	$C::CCH_2OMe$	F	Me	Me	O
2.141	H	$C::CCMe_2OMe$	H	Me	CF_3	O
2.142	H	$C::CCMe_2OMe$	H	Me	CF_2H	O
2.143	H	$C::CCMe_2OMe$	F	Me	Me	O
2.144	H	$C::CCMe_2OCOMe$	H	Me	CF_3	O
2.145	H	$C::CCMe_2OCOMe$	H	Me	CF_2H	O
2.146	H	$C::CCF_2Me$	H	Me	CF_3	O
2.147	H	$C::CCF_2Me$	H	Me	CF_2H	O
2.148	H	$C::CCF_2Me$	F	Me	Me	O
2.149	H	$C::CC(Me)=CH_2$	H	Me	CF_3	O
2.150	H	$C::CC(Me)=CH_2$	H	Me	CF_2H	O
2.151	H	CH=CFCl	H	Me	CF_3	O
2.152	H	CH=CFCl	H	Me	CF_2H	O
2.153	H	CH=CFCl	F	Me	Me	O
2.154	H	CH=CFBr	H	Me	CF_3	O
2.155	H	CH=CFBr	H	Me	CF_2H	O
2.156	H	CH=CFBr	F	Me	Me	O
2.157	H	CH=CHBr	H	Me	CF_3	O
2.158	H	CH=CHBr	H	Me	CF_2H	O
2.159	H	CH=CHBr	F	Me	Me	O
2.160	H	CH=CHF	H	Me	CF_3	O
2.161	H	CH=CHF	H	Me	CF_2H	O
2.162	H	CH=CHF	F	Me	Me	O



(Ib)

Table 3

Compound No.	R^1	R^7	R^9	R^{10}	X
3.01	H	C::CH	Me	CF_3	O
3.02	H	C::CH	Me	CF_3	S
3.03	H	C::CH	Me	CF_2H	O
3.04	propargyl	C::CH	Me	CF_3	O
3.05	H	C::CH	Me	Me	O
3.06	H	C::CH	CH_2OMe	CF_3	O
3.07	allenyl	C::CH	Me	CF_3	O
3.08	H	C::$CSiMe_3$	Me	CF_3	O
3.09	H	C::$CSiMe_3$	Me	CF_3	S
3.10	H	C::$CSiMe_3$	Me	CF_2H	O
3.11	H	C::$CSiMe_3$	Me	Me	O
3.12	H	C::CCl	Me	CF_3	O
3.13	H	C::CCl	Me	CF_2H	O
3.14	H	C::CCl	Me	Me	O
3.15	H	C::CBr	Me	CF_3	O
3.16	H	C::CBr	Me	CF_2H	O
3.17	H	C::CBr	Me	Me	O
3.18	H	C::CCF_3	Me	CF_3	O
3.19	H	C::CCF_3	Me	CF_2H	O

3.20	H	C::CCF$_3$	Me	Me	O
3.21	allenyl	C::CCF$_3$	Me	CF$_3$	O
3.22	H	CH=CH$_2$	Me	CF$_3$	O
3.23	H	CH=CH$_2$	Me	CF$_3$	S
3.24	H	CH=CH$_2$	Me	CF$_2$H	O
3.25	propargyl	CH=CH$_2$	Me	CF$_3$	O
3.26	H	CH=CH$_2$	Me	Me	O
3.27	H	CH=CH$_2$	CH$_2$OMe	CF$_3$	O
3.28	allenyl	CH=CH$_2$	Me	CF$_3$	O
3.29	H	CH=CF$_2$	Me	CF$_3$	O
3.30	H	CH=CF$_2$	Me	CF$_2$H	O
3.31	H	CH=CF$_2$	Me	Me	O
3.32	H	CH=CCl$_2$	Me	CF$_3$	O
3.33	H	CH=CCl$_2$	Me	CF$_2$H	O
3.34	H	CH=CCl$_2$	Me	Me	O
3.35	H	CH=CBr$_2$	Me	CF$_3$	O
3.36	H	CH=CBr$_2$	Me	CF$_2$H	O
3.37	H	CH=CBr$_2$	Me	Me	O
3.38	H	CF=CF$_2$	Me	CF$_3$	O
3.39	H	CF=CF$_2$	Me	CF$_2$H	O
3.40	H	CF=CF$_2$	Me	Me	O
3.41	H	CCl=CH$_2$	Me	CF$_3$	O
3.42	H	CCl=CH$_2$	Me	CF$_2$H	O
3.43	H	CCl=CH$_2$	Me	Me	O
3.44	H	CBr=CH$_2$	Me	CF$_3$	O
3.45	H	CBr=CH$_2$	Me	CF$_2$H	O
3.46	H	CBr=CH$_2$	Me	Me	O
3.47	H	CF=CHF	Me	CF$_3$	O
3.48	H	CF=CHF	Me	CF$_2$H	O
3.49	H	CF=CHF	Me	Me	O

3.50	H	$CH=CHSiMe_3$	Me	CF_3	O
3.51	H	$CH=CHSiMe_3$	Me	CF_2H	O
3.52	H	$CH=CHSiMe_3$	Me	Me	O
3.53	H	$CH=CHCF_3$	Me	CF_3	O
3.54	H	$CH=CHCF_3$	Me	CF_2H	O
3.55	H	$CH=CHCF_3$	Me	Me	O
3.56	H	$CH=CClCF_3$	Me	CF_3	O
3.57	H	$CH=CClCF_3$	Me	CF_2H	O
3.58	H	$CH=CClCF_3$	Me	Me	O
3.59	H	$CH_2C::CH$	Me	CF_3	O
3.60	H	$CH_2C::CH$	Me	CF_2H	O
3.61	H	$CH_2C::CH$	Me	Me	O
3.62	H	$CH_2C::CH$	CH_2OMe	CF_3	O
3.63	H	$CH_2C::CSiMe_3$	Me	CF_3	O
3.64	H	$CH_2C::CSiMe_3$	Me	CF_2H	O
3.65	H	$CH_2C::CSiMe_3$	Me	Me	O
3.66	H	$C::CCMe_3$	Me	CF_3	O
3.67	H	$C::CCMe_3$	Me	CF_2H	O
3.68	H	$C::CCMe_3$	Me	Me	O
3.69	H	C::CMe	Me	CF_3	O
3.70	H	C::CMe	Me	CF_2H	O
3.71	H	C::CMe	Me	Me	O
3.72	COMe	C::CH	Me	CF_3	O
3.73	H	C::CH	CF_2H	CF_2H	O
3.74	H	C::CH	CF_2H	CF_3	O
3.75	H	C::CH	Me	CH_2F	O
3.76	H	$C::CSiMe_3$	Me	CH_2F	O
3.77	H	C::C(cyclopropyl)	Me	CF_3	O
3.78	H	C::C(cyclopropyl)	Me	CHF_2	O

3.79	H	$SiMe_3$	Me	CH_2F	O
3.80	H	$SiMe_3$	Me	CF_3	O
3.81	H	$SiMe_3$	Me	CHF_2	O
3.82	H	C::CF	Me	CF_3	O
3.83	H	C::CF	Me	CF_2H	O
3.84	H	C::CF	Me	Me	O
3.85	H	$C::CCF_2Cl$	Me	CF_3	O
3.86	H	$C::CCF_2Cl$	Me	CF_2H	O
3.87	H	$C::CCF_2Cl$	Me	Me	O
3.88	H	$C::CCF_2H$	Me	CF_3	O
3.89	H	$C::CCF_2H$	Me	CF_2H	O
3.90	H	$C::CCF_2H$	Me	Me	O
3.91	H	$C::CCF_2Br$	Me	CF_3	O
3.92	H	$C::CCF_2Br$	Me	CF_2H	O
3.93	H	$C::CCF_2Br$	Me	Me	O
3.94	H	$C::CCH_2F$	Me	CF_3	O
3.95	H	$C::CCH_2F$	Me	CF_2H	O
3.96	H	$C::CCH_2F$	Me	Me	O
3.97	H	C::CCH(Me)F	Me	CF_3	O
3.98	H	C::CCH(Me)F	Me	CF_2H	O
3.99	H	C::CCH(Me)F	Me	Me	O
3.100	H	$C::CC(Me)_2F$	Me	CF_3	O
3.101	H	$C::CC(Me)_2F$	Me	CF_2H	O
3.102	H	$C::CC(Me)_2F$	Me	Me	O
3.103	H	$C::CCH_2C(Me)_3$	Me	CF_3	O
3.104	H	$C::CCH_2C(Me)_3$	Me	CF_2H	O
3.105	H	$C::CCH_2C(Me)_3$	Me	Me	O
3.106	H	$C::CCH(Me)_2$	Me	CF_3	O
3.107	H	$C::CCH(Me)_2$	Me	CF_2H	O

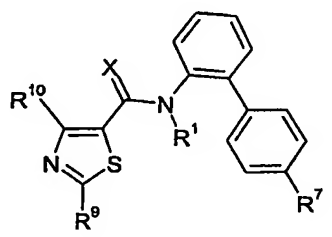
3.108	H	C::CCH(Me)$_2$	Me	Me	O
3.109	H	C::CCH$_2$CH(Me)$_2$	Me	CF_3	O
3.110	H	C::CCH$_2$CH(Me)$_2$	Me	CF_2H	O
3.111	H	C::CCH$_2$CH(Me)$_2$	Me	Me	O
3.112	H	CH_2C::$CCMe_3$	Me	CF_3	O
3.113	H	CH_2C::$CCMe_3$	Me	CF_2H	O
3.114	H	CH_2C::$CCMe_3$	Me	Me	O
3.115	H	CF_2C::$CCMe_3$	Me	CF_3	O
3.116	H	CF_2C::$CCMe_3$	Me	CF_2H	O
3.117	H	CF_2C::$CCMe_3$	Me	Me	O
3.118	H	CF_2C::CMe	Me	CF_3	O
3.119	H	CF_2C::CMe	Me	CF_2H	O
3.120	H	CF_2C::CCMe	Me	Me	O
3.121	H	CF_2C::CH	Me	CF_3	O
3.122	H	CF_2C::CH	Me	CF_2H	O
3.123	H	CF_2C::CH	Me	Me	O
3.124	H	CMe_2C::CH	Me	CF_3	O
2,125	H	CMe_2C::CH	Me	CF_2H	O
3.126	H	CMe_2C::CH	Me	Me	O
3.127	H	CHFC::CH	Me	CF_3	O
3.128	H	CHFC::CH	Me	CF_2H	O
3.129	H	CHFC::CH	Me	Me	O
3.130	H	CHMeC::CH	Me	CF_3	O
3.131	H	CHMeC::CH	Me	CF_2H	O
3.132	H	CHMeC::CH	Me	Me	O
3.133	H	CH(CF_3)C::CH	Me	CF_3	O
3.134	H	CH(CF_3)C::CH	Me	CF_2H	O
3.135	H	CH(CF_3)C::CH	Me	Me	O

3.136	H	C::C(1-F-cyclopentyl)	Me	CF_3	O
3.137	H	C::C(1-F-cyclopentyl)	Me	CHF_2	O
3.138	H	$C::CCH_2OMe$	Me	CF_3	O
3.139	H	$C::CCH_2OMe$	Me	CF_2H	O
3.140	H	$C::CCH_2OMe$	Me	Me	O
3.141	H	$C::CCMe_2OMe$	Me	CF_3	O
3.142	H	$C::CCMe_2OMe$	Me	CF_2H	O
3.143	H	$C::CCMe_2OMe$	Me	Me	O
3.144	H	$C::CCMe_2OCOMe$	Me	CF_3	O
3.145	H	$C::CCMe_2OCOMe$	Me	CF_2H	O
3.146	H	$C::CCF_2Me$	Me	CF_3	O
3.147	H	$C::CCF_2Me$	Me	CF_2H	O
3.148	H	$C::CCF_2Me$	Me	Me	O
3.149	H	$C::CC(Me)=CH_2$	Me	CF_3	O
3.150	H	$C::CC(Me)=CH_2$	Me	CF_2H	O
3.151	H	CH=CFCl	Me	CF_3	O
3.152	H	CH=CFCl	Me	CF_2H	O
3.153	H	CH=CFCl	Me	Me	O
3.154	H	CH=CFBr	Me	CF_3	O
3.155	H	CH=CFBr	Me	CF_2H	O
3.156	H	CH=CFBr	Me	Me	O
3.157	H	CH=CHBr	Me	CF_3	O
3.158	H	CH=CHBr	Me	CF_2H	O
3.159	H	CH=CHBr	Me	Me	O
3.160	H	CH=CHF	Me	CF_3	O
3.161	H	CH=CHF	Me	CF_2H	O
3.162	H	CH=CHF	Me	Me	O
3.163	H	$CMe=CHCF_3$	Me	CF_3	O
3.164	H	$CMe=CHCF_3$	Me	CF_2H	O

3.225	H	CCF_3=CHCl	Me	Me	O
3.226	H	CH=$CFCF_2Cl$	Me	CF_3	O
3.227	H	CH=$CFCF_2Cl$	Me	CF_2H	O
3.228	H	CH=$CFCF_2Cl$	Me	Me	O
3.229	H	CH=$CClCF_2Cl$	Me	CF_3	O
3.230	H	CH=$CClCF_2Cl$	Me	CF_2H	O
3.231	H	CH=$CClCF_2Cl$	Me	Me	O
3.232	H	CH_2CF=CF_2	Me	CF_3	O
3.233	H	CH_2CF=CF_2	Me	CF_2H	O
3.234	H	CH_2CF=CF_2	Me	Me	O
3.235	H	CF=CFBr	Me	CF_3	O
3.236	H	CF=CFBr	Me	CF_2H	O
3.237	H	CF=CFBr	Me	Me	O
3.238	H	CH_2CH=CF_2	Me	CF_3	O
3.239	H	CH_2CH=CF_2	Me	CF_2H	O
3.240	H	CH_2CH=CF_2	Me	Me	O
3.241	H	CH_2CH=CCl_2	Me	CF_3	O
3.242	H	CH_2CH=CCl_2	Me	CF_2H	O
3.243	H	CH_2CH=CCl_2	Me	Me	O
3.244	H	CH_2CH=CBr_2	Me	CF_3	O
3.245	H	CH_2CH=CBr_2	Me	CF_2H	O
3.246	H	CH_2CH=CBr_2	Me	Me	O
3.247	H	CCl=CF_2	Me	CF_3	O
3.248	H	CCl=CF_2	Me	CF_2H	O
3.249	H	CCl=CF_2	Me	Me	O
3.250	H	C::$CCMe_2OH$	Me	CF_3	O
3.251	H	C::CCH_2CH_3	Me	CF_2H	O
3.252	H	C::CCH_2CH_3	Me	Me	O
3.253	H	C::CCH_2CH_3	Me	CF_3	O
3.254	H	C::CCF=CF_2	Me	CF_3	O

3.255	H	C::CCF=CF_2	Me	CF_2H	O
3.256	H	C::CCHFCl	Me	CF_3	O
3.257	H	C::CCHFCl	Me	CF_2H	O
3.258	H	C::CCHFCl	Me	Me	O
3.259	H	CH=CFC_2F_5	Me	CF_3	O
3.260	H	CH=CFC_2F_5	Me	CF_2H	O
3.261	H	CH=CFC_2F_5	Me	Me	O
3.262	H	C::$CCF_2CH_2CH_3$	Me	CF_3	O
3.263	H	C::$CCF_2CH_2CH_3$	Me	CF_2H	O
3.264	H	C::$CCF_2CH_2CH_3$	Me	Me	O
3.265	H	C::$CCHFCH_2CH_3$	Me	CF_3	O
3.266	H	C::$CCHFCH_2CH_3$	Me	CF_2H	O
3.267	H	C::$CCHFCH_2CH_3$	Me	Me	O
3.268	H	C::$CCF(CF_3)_2$	Me	CF_3	O
3.269	H	C::$CCF(CF_3)_2$	Me	CF_2H	O
3.270	H	C::$CCF(CF_3)_2$	Me	Me	O
3.271	H	CH=$CClC_2F_5$	Me	CF_3	O
3.272	H	CH=$CClC_2F_5$	Me	CF_2H	O
3.273	H	CH=$CClC_2F_5$	Me	Me	O
3.274	H	C::CC_2F_5	Me	CF_3	O
3.275	H	C::CC_2F_5	Me	CF_2H	O
3.276	H	C::CC_2F_5	Me	Me	O

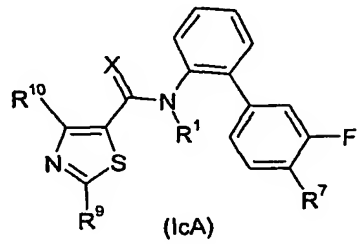
Table 3 provides 276 compounds of formula (Ic):



(Ic)

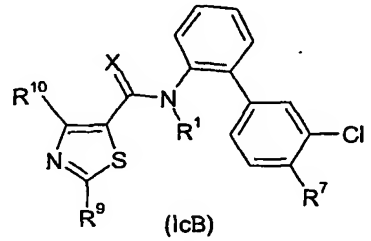
wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3.

Table 3 provides 276 compounds of formula (IcA) wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3.



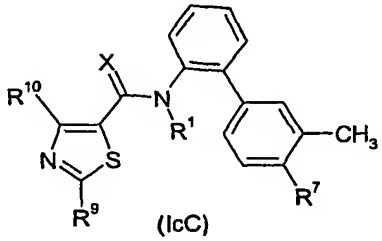
(IcA)

Table 3 provides 276 compounds of formula (IcB) wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3 .



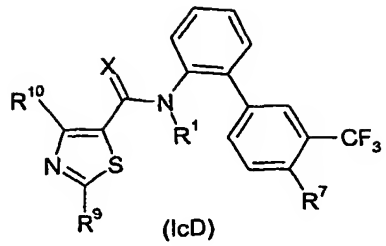
(IcB)

Table 3 provides 276 compounds of formula (IcC) wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3 .



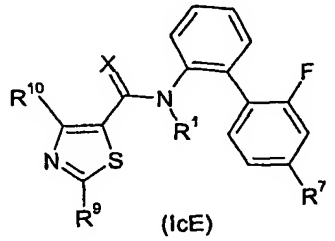
(IcC)

Table 3 provides 276 compounds of formula (IcD) wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3 .



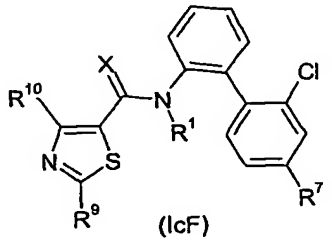
(IcD)

Table 3 provides 276 compounds of formula (IcE) wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3 .



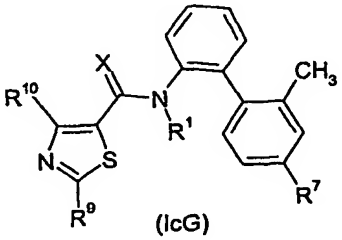
(IcE)

Table 3 provides 276 compounds of formula (IcF) wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3 .



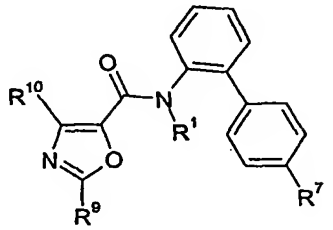
(IcF)

Table 3 provides 276 compounds of formula (IcG) wherein R^1, R^7, R^9, R^{10} and X are as defined in Table 3 .



(IcG)

Table 4 provides 3 compounds of formula (Id):



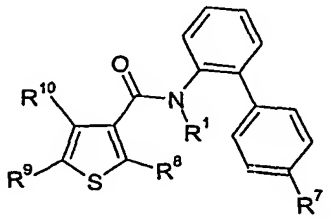
(Id)

wherein R^1, R^7, R^9 and R^{10} are as defined in Table 4.

Table 4

Compound No.	R^1	R^7	R^9	R^{10}
4.01	H	C::CH	Me	CF_3
4.02	H	C::$CSiMe_3$	Me	CF_3
4.03	H	$CH=CH_2$	Me	CF_3

Table 5 provides 15 compounds of formula (Ie):



(Ie)

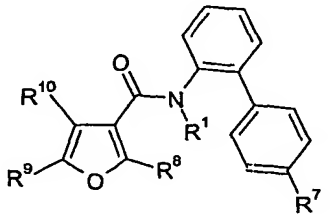
wherein R^1, R^7, R^8, R^9 and R^{10} are as defined in Table 5.

Table 5

Compound No.	R^1	R^7	R^8	R^9	R^{10}
5.01	H	C::CH	H	H	CF_3

5.02	H	C::CH	Me	Me	Me
5.03	H	C::CH	H	Me	CF_3
5.04	H	C::CH	Me	Me	H
5.05	COMe	C::CH	Me	Me	H
5.06	COMe	C::CH	Me	Me	Me
5.07	COEt	C::CH	Me	Me	Me
5.08	H	C::CSiMe$_3$	H	H	CF_3
5.09	H	C::CSiMe$_3$	Me	Me	Me
5.10	H	C::CSiMe$_3$	H	Me	CF_3
5.11	H	C::CSiMe$_3$	Me	Me	H
5.12	H	C::CSiMe$_3$	H	H	CF_3
5.13	H	CH=CH$_2$	Me	Me	Me
5.14	H	CH=CH$_2$	H	Me	CF_3
5.15	H	CH=CH$_2$	Me	Me	H

Table 6 provides 15 compounds of formula (If):



(If)

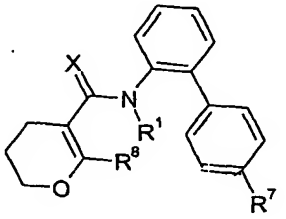
wherein R^1, R^7, R^8, R^9 and R^{10} are as defined in Table 6.

Table 6

Compound No.	R^1	R^7	R^8	R^9	R^{10}
6.01	H	C::CH	H	H	CF_3
6.02	H	C::CH	Me	Me	Me
6.03	H	C::CH	H	Me	CF_3

6.04	H	C::CH	Me	Me	H
6.05	COMe	C::CH	Me	Me	H
6.06	COMe	C::CH	Me	Me	Me
6.07	COEt	C::CH	Me	Me	Me
6.08	H	C::CSiMe$_3$	H	H	CF_3
6.09	H	C::CSiMe$_3$	Me	Me	Me
6.10	H	C::CSiMe$_3$	H	Me	CF_3
6.11	H	C::CSiMe$_3$	Me	Me	H
6.12	H	C::CSiMe$_3$	H	H	CF_3
6.13	H	CH=CH$_2$	Me	Me	Me
6.14	H	CH=CH$_2$	H	Me	CF_3
6.15	H	CH=CH$_2$	Me	Me	H

Table 7 provides 10 compounds of formula (Ig):



(Ig)

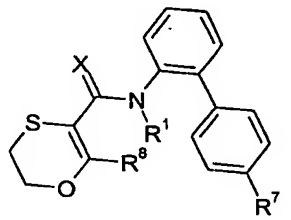
wherein R^1, R^7, R^8 and X are as defined in Table 7.

Table 7

Compound No.	R^1	R^7	R^8	X
7.01	H	C::CH	CF_3	O
7.02	H	C::CH	Me	O
7.03	H	C::CH	CF_3	S
7.04	COMe	C::CH	Me	O
7.05	H	C::CSiMe$_3$	CF_3	O
7.06	H	C::CSiMe$_3$	Me	O

7.07	H	$CH=CH_2$	CF_3	O
7.08	H	$CH=CH_2$	CF_3	O
7.09	propargyl	$CH=CH_2$	Me	O
7.10	allenyl	$CH=CH_2$	Me	O

Table 8 provides 10 compounds of formula (Ih):



(Ih)

wherein R^1, R^7, R^8 and X are as defined in Table 8.

Table 8

Compound No.	R^1	R^7	R^8	X
8.01	H	C::CH	CF_3	O
8.02	H	C::CH	Me	O
8.03	H	C::CH	CF_3	S
8.04	COMe	C::CH	Me	O
8.05	H	$C::CSiMe_3$	CF_3	O
8.06	H	$C::CSiMe_3$	Me	O
8.07	H	$CH=CH_2$	CF_3	O
8.08	H	$CH=CH_2$	CF_3	O
8.09	propargyl	$CH=CH_2$	Me	O
8.10	allenyl	$CH=CH_2$	Me	O

Table 9

Compound No.	R^1	R^7	R^8
9.01	H	C::CH	Cl
9.02	H	C::CH	CF_3
9.03	COMe	C::CH	Cl
9.04	H	C::CH	Br
9.05	$COCH_2OMe$	C::CH	Cl
9.06	H	$C::CSiMe_3$	Cl
9.07	H	$C::CSiMe_3$	CF_3
9.08	H	$C::CSiMe_3$	Br
9.09	H	$CH=CH_2$	CF_3
9.10	H	$CH=CH_2$	Br
9.11	H	$CH=CH_2$	Cl
9.12	H	$CH=CH_2$	CH_3
9.13	propargyl	$CH=CH_2$	Cl
9.14	allenyl	$CH=CH_2$	Cl
9.15	H	C::CCl	Cl
9.16	H	C::CCl	CF_3
9.17	H	C::CCl	Br
9.18	H	C::CBr	Cl
9.19	H	C::CBr	CF_3
9.20	H	C::CBr	Br
9.21	H	$C::CCF_3$	Cl
9.22	H	$C::CCF_3$	CF_3
9.23	H	$C::CCF_3$	Br
9.24	H	$CH=CF_2$	CF_3
9.25	H	$CH=CF_2$	Br

9.26	H	$CH=CF_2$	Cl
9.27	H	$CCl=CH_2$	CF_3
9.28	H	$CCl=CH_2$	Br
9.29	H	$CCl=CH_2$	Cl
9.30	H	$CBr=CH_2$	CF_3
9.31	H	$CBr=CH_2$	Br
9.32	H	$CBr=CH_2$	Cl
9.33	H	CF=CHF	CF_3
9.34	H	CF=CHF	Br
9.35	H	CF=CHF	Cl
9.36	H	$CH=CHCF_3$	CF_3
9.37	H	$CH=CHCF_3$	Br
9.38	H	$CH=CHCF_3$	Cl
9.39	H	$CH=CClCF_3$	CF_3
9.40	H	$CH=CClCF_3$	Br
9.41	H	$CH=CClCF_3$	Cl
9.42	H	$CH_2C::CH$	CF_3
9.43	H	$CH_2C::CH$	Br
9.44	H	$CH_2C::CH$	Cl
9.45	H	$CH_2C::CSiMe_3$	CF_3
9.46	H	$CH_2C::CSiMe_3$	Br
9.47	H	$CH_2C::CSiMe_3$	Cl
9.48	H	C::CMe	CF_3
9.49	H	C::CMe	Br
9.50	H	C::CMe	Cl
9.51	H	$CH=CCl_2$	CF_3
9.52	H	$CH=CCl_2$	Br
9.53	H	$CH=CCl_2$	Cl
9.54	H	$CH=CHSiMe_3$	CF_3

9.55	H	CH=CHSiMe$_3$	Br
9.56	H	CH=CHSiMe$_3$	Cl
9.57	H	C::C(cyclopropyl)	Cl
9.58	H	SiMe$_3$	Cl
9.59	H	C::CCMe$_3$	Cl
9.60	H	CH=CBr$_2$	CF$_3$
9.61	H	CH=CBr$_2$	Br
9.62	H	CH=CBr$_2$	Cl
9.63	H	CF=CF$_2$	CF$_3$
9.64	H	CF=CF$_2$	Br
9.65	H	CF=CF$_2$	Cl
9.66	H	C::CCMe$_3$	CF$_3$
9.67	H	C::CCMe$_3$	Br
9.68	allenyl	C::CCMe$_3$	Cl
9.69	H	C::C(cyclopropyl)	CF$_3$
9.70	H	C::C(cyclopropyl)	Br
9.71	H	C::CF	CF$_3$
9.72	H	C::CF	Br
9.73	H	C::CF	Cl
9.74	H	C::CCF$_2$Cl	Cl
9.75	H	C::CCF$_2$Cl	CF$_3$
9.76	H	C::CCF$_2$Cl	Br
9.77	H	C::CCF$_2$H	Cl
9.78	H	C::CCF$_2$H	CF$_3$
9.79	H	C::CCF$_2$H	Br
9.80	H	C::CCF$_2$Br	Cl
9.81	H	C::CCF$_2$Br	CF$_3$
9.82	H	C::CCF$_2$Br	Br
9.83	H	C::CCH$_2$F	Cl

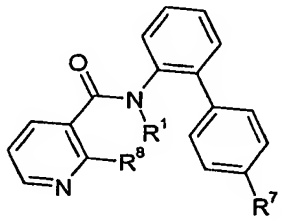
9.84	H	C::CCH$_2$F	CF$_3$
9.85	H	C::CCH$_2$F	Br
9.86	H	C::CCH(Me)F	Cl
9.87	H	C::CCH(Me)F	CF$_3$
9.88	H	C::CCH(Me)F	Br
9.89	H	C::CC(Me)$_2$F	Cl
9.90	H	C::CC(Me)$_2$F	CF$_3$
9.91	H	C::CC(Me)$_2$F	Br
9.92	H	C::CCH$_2$CMe$_3$	Cl
9.93	H	C::CCH$_2$CMe$_3$	Br
9.94	H	C::CCHMe$_2$	CF$_3$
9.95	H	C::CCHMe$_2$	Br
9.96	H	C::CCHMe$_2$	Cl
9.97	H	C::CCH$_2$CHMe$_2$	CF$_3$
9.98	H	C::CCH$_2$CHMe$_2$	Br
9.99	H	C::CCH$_2$CHMe$_2$	Cl
9.100	H	CF$_2$C::CMe	CF$_3$
9.101	H	CF$_2$C::CMe	Br
9.102	H	CF$_2$C::CMe	Cl
9.103	H	CF$_2$C::CH	CF$_3$
9.104	H	CF$_2$C::CH	Br
9.105	H	CF$_2$C::CH	Cl
9.106	H	CHFC::CH	CF$_3$
9.107	H	CHFC::CH	Br
9.108	H	CHFC::CH	Cl
9.109	H	C::C(1-F-cyclopentyl)	CF$_3$
9.110	H	C::C(1-F-cyclopentyl)	Br
9.111	H	C::C(1-F-cyclopentyl)	Cl

9.112	H	C::CCH_2OMe	Cl
9.113	H	C::CCH_2OMe	Br
9.114	H	C::CCH_2OMe	CF_3
9.115	H	C::$CCMe_2OMe$	Cl
9.116	H	C::$CCMe_2OMe$	Br
9.117	H	C::$CCMe_2OMe$	CF_3
9.118	H	C::$CCMe_2OCOMe$	Cl
9.119	H	C::$CCMe_2OCOMe$	Br
9.120	H	C::$CCMe_2OCOMe$	CF_3
9.121	H	C::CCF_2Me	Cl
9.122	H	C::CCF_2Me	Br
9.123	H	C::CCF_2Me	CF_3
9.124	H	CH=CFCl	CF_3
9.125	H	CH=CFCl	Br
9.126	H	CH=CFCl	Cl
9.127	H	CH=CFBr	CF_3
9.128	H	CH=CFBr	Br
9.129	H	CH=CFBr	Cl
9.130	H	CH=CHBr	CF_3
9.131	H	CH=CHBr	Br
9.132	H	CH=CHBr	Cl
9.133	H	CMe=$CHCF_3$	CF_3
9.134	H	CMe=$CHCF_3$	Br
9.135	H	CMe=$CHCF_3$	Cl
9.136	H	CH=$CFCF_3$	CF_3
9.137	H	CH=$CFCF_3$	Br
9.138	H	CH=$CFCF_3$	Cl
9.139	H	CH=$CBrCF_3$	CF_3
9.140	H	CH=$CBrCF_3$	Br

9.171	H	$CCF_3=CBr_2$	Br
9.172	H	$CCF_3=CBr_2$	Cl
9.173	H	$CCF_3=CH_2$	CF_3
9.174	H	$CCF_3=CH_2$	Br
9.175	H	$CCF_3=CH_2$	Cl
9.176	H	$CCF_3=CFBr$	CF_3
9.177	H	$CCF_3=CFBr$	Br
9.178	H	$CCF_3=CFBr$	Cl
9.179	H	$CCF_3=CFCl$	CF_3
9.180	H	$CCF_3=CFCl$	Br
9.181	H	$CCF_3=CFCl$	Cl
9.182	H	$CH=CFCF_2Cl$	CF_3
9.183	H	$CH=CFCF_2Cl$	Br
9.184	H	$CH=CFCF_2Cl$	Cl
9.185	H	$CH=CClCF_2Cl$	Cl
9.186	H	$CH_2CF=CF_2$	CF_3
9.187	H	$CH_2CF=CF_2$	Br
9.188	H	$CH_2CF=CF_2$	Cl
9.189	H	$CF=CFBr$	Cl
9.190	H	$CH_2CH=CF_2$	Cl
9.191	H	$CH_2CH=CCl_2$	Cl
9.192	H	$CH_2CH=CBr_2$	Cl
9.193	H	$CH_2CH=CBr_2$	CF_3
9.194	H	$CH_2CH=CBr_2$	Br
9.195	H	$CCl=CF_2$	Cl
9.196	H	$C::CMe$	CHF_2
9.197	H	$C::CCHMe_2$	CHF_2
9.198	H	$C::CCH_2CHMe_2$	CHF_2
9.199	H	$C::CCF_3$	CHF_2
9.200	H	C::CH	CHF_2

9.201	H	C::CCH_2SiMe_3	Cl
9.202	H	C::CCH_2CF_3	Cl
9.203	H	C::$CSi(Me)_2CMe_3$	Cl
9.204	H	C::CCH_2CH_3	Cl
9.205	H	C::$CCF=CF_2$	Cl
9.206	H	C::CCHFCl	Cl
9.207	H	$CH=CFC_2F_5$	Cl
9.208	H	C::$CCF_2CH_2CH_3$	Cl
9.209	H	C::$CCHFCH_2CH_3$	Cl
9.210	H	C::$CCF(CF_3)_2$	Cl
9.211	H	$CH=CClC_2F_5$	Cl
9.212	H	C::CC_2F_5	Cl

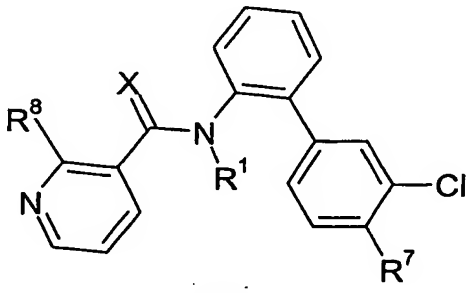
Table 9 provides 212 compounds of formula (Ii):



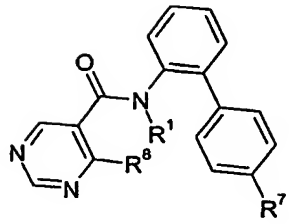
(Ii)

wherein R^1, R^7 and R^8 are as defined in Table 9.

Table 9 provides 212 compounds of formula (IiA) wherein R^1, R^7 and R^8 are as defined in Table 9.



(IiA)



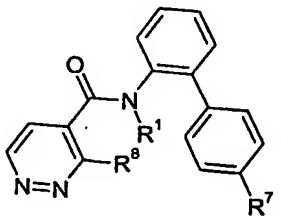
(Ij)

wherein R^1, R^7 and R^8 are as defined in Table 10.

Table 10

Compound No.	R^1	R^7	R^8
10.01	H	C::CH	Cl
10.02	H	C::CH	CF_3
10.03	COMe	C::CH	Cl
10.04	H	C::CH	Br
10.05	$COCH_2OMe$	C::CH	Cl
10.06	H	$C::CSiMe_3$	Cl
10.07	H	$C::CSiMe_3$	CF_3
10.08	H	$C::CSiMe_3$	Br
10.09	H	$CH=CH_2$	CF_3
10.10	H	$CH=CH_2$	Br
10.11	H	$CH=CH_2$	Cl
10.12	H	$CH=CH_2$	CH_3
10.13	propargyl	$CH=CH_2$	Cl
10.14	allenyl	$CH=CH_2$	Cl

Table 11 provides 14 compounds of formula (Ik):



(Ik)

wherein R^1, R^7 and R^8 are as defined in Table 11.

Table 11

Compound No.	R^1	R^7	R^8
11.01	H	C::CH	Cl
11.02	H	C::CH	CF_3
11.03	COMe	C::CH	Cl
11.04	H	C::CH	Br
11.05	$COCH_2OMe$	C::CH	Cl
11.06	H	$C::CSiMe_3$	Cl
11.07	H	$C::CSiMe_3$	CF_3
11.08	H	$C::CSiMe_3$	Br
11.09	H	$CH=CH_2$	CF_3
11.10	H	$CH=CH_2$	Br
11.11	H	$CH=CH_2$	Cl
11.12	H	$CH=CH_2$	CH_3
11.13	propargyl	$CH=CH_2$	Cl
11.14	allenyl	$CH=CH_2$	Cl

Table 12 provides 94 compounds of formula (II) where R^2, R^3, R^4 and R^5 are each hydrogen; n is 0; and R^1 and R^7 are as defined in Table 12.

Table 12

Compound No.	R^1	R^7
12.01	H	C::CH
12.02	H	$C::CSiMe_3$
12.03	H	$C::CCF_3$
12.04	H	C::CCl

12.05	H	$CH=CH_2$
12.06	H	$CH=CF_2$
12.07	H	$CH=CCl_2$
12.08	H	$CH=CBr_2$
12.09	H	$CF=CF_2$
12.10	H	$CCl=CH_2$
12.11	H	CF=CHF
12.12	H	$CH=CHCF_3$
12.13	H	$CH=CClCF_3$
12.14	H	$CH_2C::CH$
12.15	H	$C::CCMe_3$
12.16	CHO	C::CMe
12.17	H	C::C(cyclopropyl)
12.18	H	$SiMe_3$
12.19	H	C::CBr
12.20	H	$CBr=CH_2$
12.21	H	$CH=CHSiMe_3$
12.22	H	$CH_2C::CSiMe_3$
12.23	H	C::CMe
12.24	H	C::CF
12.25	H	$C::CCF_2Cl$
12.26	H	$C::CCF_2H$
12.27	H	$C::CCF_2Br$
12.28	H	$C::CCH_2F$
12.29	H	C::CCH(Me)F
12.30	H	$C::CC(Me)_2F$
12.31	H	$C::CCH_2C(Me)_3$
12.32	H	$C::CCH(Me)_2$
12.33	H	$C::CCH_2CH(Me)_2$

12.34	H	$CH_2C::CCMe_3$
12.35	H	$CF_2C::CCMe_3$
12.36	H	$CF_2C::CMe$
12.37	H	$CF_2C::CH$
12.38	H	$CMe_2C::CH$
12.39	H	$CHFC::CH$
12.40	H	$CHMeC::CH$
12.41	H	$CH(CF_3)C::CH$
12.42	H	C::C(1-F-cyclopentyl)
12.43	H	$C::CCH_2OMe$
12.44	H	$C::CCMe_2OMe$
12.45	H	$C::CCMe_2OCOMe$
12.46	H	$C::CCF_2Me$
12.47	H	$C::CC(Me)=CH_2$
12.48	H	CH=CFCl
12.49	H	CH=CFBr
12.50	H	CH=CHBr
12.51	H	CH=CHF
12.52	H	$CMe=CHCF_3$
12.53	H	$CH=CFCF_3$
12.54	H	$CH=CBrCF_3$
12.55	H	$CH=CHC_2F_5$
12.56	H	CH=CHCl
12.57	H	$CH=C(CF_3)_2$
12.58	H	CMe=CFCl
12.59	H	CMe=CFBr
12.60	H	$CMe=CF_2$
12.61	H	$CMe=CCl_2$
12.62	H	$CMe=CBr_2$

12.63	H	$CMe=CFCF_3$
12.64	H	$CMe=CClCF_3$
12.65	H	$CCF_3=CF_2$
12.66	H	$CCF_3=CCl_2$
12.67	H	$CCF_3=CCl_2$
12.68	H	$CCF_3=CCl_2$
12.69	H	$CCF_3=CBr_2$
12.70	H	$CCF_3=CH_2$
12.71	H	$CCF_3=CFBr$
12.72	H	$CCF_3=CHF$
12.73	H	$CCF_3=CFCl$
12.74	H	$CCF_3=CHCl$
12.75	H	$CH=CFCF_2Cl$
12.76	H	$CH=CClCF_2Cl$
12.77	H	$CH_2CF=CF_2$
12.78	H	$CF=CFBr$
12.79	H	$CH_2CH=CF_2$
12.80	H	$CH_2CH=CCl_2$
12.81	H	$CH_2CH=CBr_2$
12.82	H	$CCl=CF_2$
12.83	H	$C::CCH_2SiMe_3$
12.84	H	$C::CSiMe_2CMe_3$
12.85	H	$C::CCMe_2OH$
12.86	H	$C::CCH_2CH_3$
12.87	H	$C::CCF=CF_2$
12.88	H	C::CCHFCl
12.89	H	$CH=CFC_2F_5$
12.90	H	$C::CCF_2CH_2CH_3$
12.91	H	$C::CCHFCH_2CH_3$

12.92	H	C::CCF$(CF_3)_2$
12.93	H	CH=CClC_2F_5
12.94	H	C::CC_2F_5

Table 13 provides 1 compound of formula (III) where R^2, R^3, R^4 and R^5 are each hydrogen; n is 0; and Hal and R^7 are as defined in Table 13.

Table 13

Compound Number	R^7	Hal
13.01	C::CH	Br

Throughout this description, temperatures are given in degrees Celsius; "NMR" means nuclear magnetic resonance spectrum; MS stands for mass spectrum; M^+-1 or M^++1 are signals in the mass spectrum respectively corresponding to the molecular weight minus 1 or the molecular weight plus 1; and "%" is percent by weight, unless corresponding concentrations are indicated in other units.

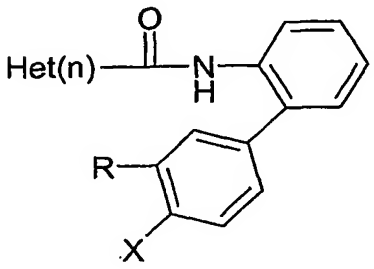
The following abbreviations are used throughout this description:

m.p. =	melting point	b.p.=	boiling point.
s =	singlet	br =	broad
d =	doublet	dd =	doublet of doublets
t =	triplet	q =	quartet
m =	multiplet	ppm =	parts per million

Table 14 shows selected melting point, selected molecular ion and selected NMR data, all with $CDCl_3$ as the solvent (unless otherwise stated; if a mixture of solvents is present, this is indicated as, for example, ($CDCl_3$ / d_6-DMSO)), (no attempt is made to list all characterising data in all cases) for compounds of Tables 1 to 13. Unless otherwise stated, the data relate to a cis/trans mixture of each compound.

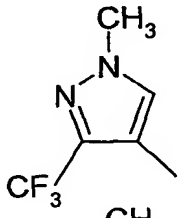
15.28	1.3(s,9); 7.2-7.5(m,10); 8.1(m,2); 8.45(m,2)	
16.7		63-64

Table 15 provides 48 compounds of formulas 1(m) where R,X and Het are as defined in Table 15.

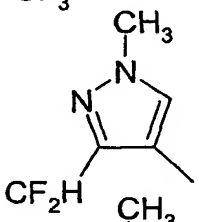


I(m)

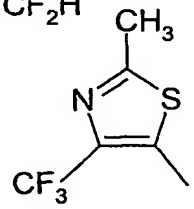
Het(1) =



Het(2) =



Het(3) =



Het(4) =

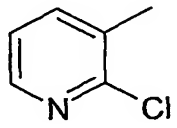


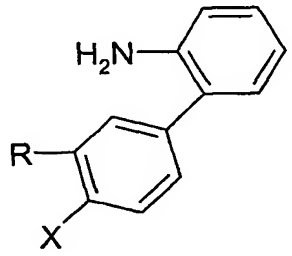
Table 15

Compound No.	X	R	Het
15.1	H	C::CH	Het(1)
15.2	H	C::CH	Het(2)
15.3	H	C::CH	Het(3)
15.4	H	C::CH	Het(4)
15.5	Cl	C::CH	Het(1)
15.6	Cl	C::CH	Het(2)

15.7	Cl	C::CH	Het(3)
15.8	Cl	C::CH	Het(4)
15.9	F	C::CH	Het(1)
15.10	F	C::CH	Het(2)
15.11	F	C::CH	Het(3)
15.12	F	C::CH	Het(4)
15.13	H	C::CMe	Het(1)
15.14	H	C::CMe	Het(2)
15.15	H	C::CMe	Het(3)
15.16	H	C::CMe	Het(4)
15.17	F	C::CMe	Het(1)
15.18	F	C::CMe	Het(2)
15.19	F	C::CMe	Het(3)
15.20	F	C::CMe	Het(4)
15.21	Cl	C::CMe	Het(1)
15.22	Cl	C::CMe	Het(2)
15.23	Cl	C::CMe	Het(3)
15.24	Cl	C::CMe	Het(4)
15.25	H	C::$CCMe_3$	Het(1)
15.26	H	C::$CCMe_3$	Het(2)
15.27	H	C::$CCMe_3$	Het(3)
15.28	H	C::$CCMe_3$	Het(4)
15.29	Cl	C::$CCMe_3$	Het(1)
15.30	Cl	C::$CCMe_3$	Het(2)
15.31	Cl	C::$CCMe_3$	Het(3)
15.32	Cl	C::$CCMe_3$	Het(4)
15.33	F	C::$CCMe_3$	Het(1)
15.34	F	C::$CCMe_3$	Het(2)

15.35	F	C::CCMe$_3$	Het(3)
15.36	F	C::CCMe$_3$	Het(4)
15.37	H	CH=CClCF$_3$	Het(1)
15.38	H	CH=CClCF$_3$	Het(2)
15.39	H	CH=CClCF$_3$	Het(3)
15.40	H	CH=CClCF$_3$	Het(4)
15.41	Cl	CH=CClCF$_3$	Het(1)
15.42	Cl	CH=CClCF$_3$	Het(2)
15.43	Cl	CH=CClCF$_3$	Het(3)
15.44	Cl	CH=CClCF$_3$	Het(4)
15.45	F	CH=CClCF$_3$	Het(1)
15.46	F	CH=CClCF$_3$	Het(2)
15.47	F	CH=CClCF$_3$	Het(3)
15.48	F	CH=CClCF$_3$	Het(4)

Table 16 provides 12 compounds of formulas II(m) where R and X are as defined in Table 16 :



II(m)

Table 16

Compound No.	X	R
16.1	H	C::CH
16.2	Cl	C::CH
16.3	F	C::CH

16.4	H	C::CMe
16.5	F	C::CMe
16.6	Cl	C::CMe
16.7	H	C::CCMe$_3$
16.8	Cl	C::CCMe$_3$
16.9	F	C::CCMe$_3$
16.10	H	CH=CClCF$_3$
16.11	Cl	CH=CClCF$_3$
16.12	F	CH=CClCF$_3$

The compounds according to the present invention may be prepared according to the following reaction schemes, in which, unless otherwise stated, the definition of each variable is as defined above for a compound of formula (I).

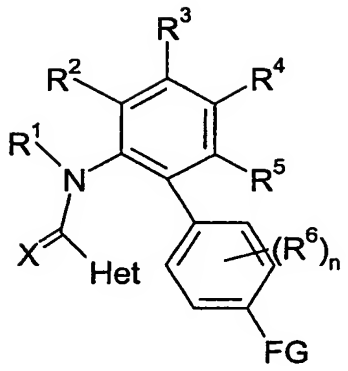
There are a number of alternative methods for preparing a compound of formula (I).

Method A

A compound of formula (I) may be prepared by reacting a compound of formula (II) with a compound of formula Het-C(=O)OR' [where R' is C_{1-5} alkyl] in the presence of strong base [for example NaH or sodium hexamethyldisilazane], in a dry polar solvent [preferably THF] and at a temperature between –10°C and the boiling point of the solvent [preferably at ambient temperature]. The article by J.Wang et al, Synlett 2001,1485 provides details of analogous preparations.

Method B

A compound of formula (I) may be prepared by reacting a compound of formula (II) with a compound of formula Het-C(=O)R'' [where R'' is OH or a leaving group, such as Cl, Br, F or OC(=O)C_{1-4} alkyl] in an inert organic solvent [such as ethylacetate, dichloromethane, dioxane or DMF] and at a temperature between –10°C and the boiling point of the solvent [preferably at ambient temperature]. If R" is OH, the reaction is carried out in the presence of an activating agent [for example BOP-Cl] and two equivalents of a base [such as a tertiary



(IV)

[where FG is a functional group which is convertible to R^7 in one or more synthetic steps]. Functional group interconversions are standard procedures for a person skilled in the art. There are many methods described in the literature, which can be used as such or with modifications according to the functionalities present; Table A gives literature references (some of which also cite further appropriate references) which are specifically relevant to the preparation of a compound of formula (I) by the interconversion of FG to R^7. It is apparent to the person skilled in the art that the literature examples given in Table A are not necessarily limited to the preparation of the specifically mentioned R^7 but can be also applied by analogy to the preparation of other structurally related R^7

Table A

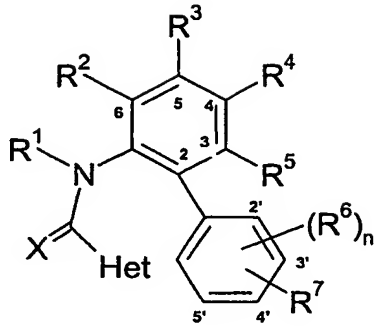
Reference	FG	R^7
Synthesis 2001, 2081 Tetrahedron 58, 1491 (2002)	CHO	$CH=CBr_2$ CH=CHBr C::CBr
Russ.Chem. Bull. 50 (6), 1047 (2001)	CHO	$CH=CCl_2$
Tetrahedron 57, 7519 (2001)	CHO	$CH=CClCF_3$ $CH=CFCF_2Cl$
Bull.Chem.Soc.Jpn. 73, 1691 (2000) Bull.Chem.Soc.Jpn. 71, 2903 (1998-)	CHO	CF=CBrF
J. Chem.Soc.Perkin 1 2002, 883	$COCH_3$	$C(CH_3)=CHBr$ $C(CH_3)=CCl_2$
J.Fluorine Chem. 1, 381 (1972)	$COCH_3$	$C(CH_3)=CBr_2$

J.Fluorine Chem. 23, 339 (1983)	$COCF_3$	$C(CH_3)=CFBr$ $C(CH_3)=CFCl$ $C(CF_3)=CFBr$ $C(CF_3)=CFCl$ $C(CF_3)=CF_2$
Tetrahedron Letters 41, 8045 (2000) J.Org.Chem. 62, 9217 (1997)	Hal	$CF=CHF$
Tetrahedron Letters 37,8799 (1996)	Hal	$CH=CF_2$
JP 09278688 J.Fluorine Chem. 31, 115 (1986)	Hal	$CF=CF_2$
Zh.Org.Khim. 25, 1451 (1989)	Hal	$CF=CFCl$
J.Org.Chem. 53, 2714 (1988)	Hal	$CF=CFCF_3$
J.Org.Chem. 56, 7336 (1991) Tetrahedron Letters 42, 4083 (2001)	Hal	$C(CF_3)=CH_2$
Ukr.Khim.Zh. 32, 996 (1966)	$CHBrCH_2CF_3$	$CH=CHCF_3$
Bull.Chem.Soc.Jap. 62,1352	$CH=CClCF_3$ $CH=CFCF_2Cl$	$C::CCF_3$ $C::CCF_2Cl$
J.Org.Chem. 54, 5856 (1989) J.Am.Chem.Soc. 109,2138 (1987) Tetrahedron 45,6511 (1989) J.Orgmet.Chem.549,127 (1997) Tetrahedron 56, 10075 (2000) Tetrahedron Asymmetry 6, 245 (1995)	Hal or triflate	$C::CH$ $C::CSiMe_3$ $C::CCH_3$ $C::CCMe_3$ $C::CCH_2OH$ $C::CCHMeOH$ $C::CCMe_2OH$ $C::CCHO$ $C::CC(O)Me$
J.Org.Chem. 32, 1674 (1967)	$C::CCH_3$	$CH_2C::CH$
Synth.Comm.1989,561	CHO CH_2CHO	$C::CH$ $CH_2C::CH$

WO 01 092563	CHO	$CH=CH_2$
J.Am.Chem.Soc. 123,4155 (2001) Org.Lett. 2,3703 (2000) J.Org.Chem. 57,3558 (1992) Synthesis 2001,893	Hal or triflate	$CH=CH_2$
GB 2 183 639	C::CH	$CH=CH_2$
Synthesis 1996, 1494 J.Org.Chem.49, 294 (1984)	CHO	C::CCl C::CH C::CBr
US 6 159956	CH_2Br	$CH_2CF=CF_2$
Liebigs Ann.Chem. 1995, 2027	CH_2Br	$CH=C(CF_3)_2$
J.Am.Chem.Soc. 123,4155 (2001)	CH_2Br	$CH_2C::CSiMe_3$
Inorg.Chim.Acta 296, 37 (1999)	Hal	$CH_2C::CMe_3$
J.Fluorine Chem.111, 185 (2001) J.Chem.Soc. Perkin I 1988, 921	CH=CHBr CH=CFBr $CH=CBr_2$	$CH=CHCF_3$ $CH=CFCF_3$ $CH=C(CF_3)_2$
DE 4417441 US3976691 J. Org. Chem. 64, 7048 (1999)	$C::CCH_2OH$ C::CCHMeOH $C::CCMe_2OH$ C::CCHO C::CC(O)Me	$C::CCH_2F$ C::CCHMeF $C::CCMe_2F$ $C::CCHF_2$ $C::CCF_2Me$
J.Chem.Soc. Perkin I 1994, 725	$C::CCH_2OH$	$C::CCH_2CF_3$
Synthesis 1997, 1489 Angew.Chem.Int.Ed. 39, 2481 (2000) J.Org.Chem. 47, 2255 (1982) J.Fluorine.Chem.113, 55 (2002)	C::CH	$C::CCF_2CF_3$ $CH=CHCF_2CF_3$
J.Fluorine.Chem.64, 61 (1993) J.Am.Chem.Soc. 109, 3492 (1987)	C::CH	C::CCHFCl $C::CCF_2Br$
J.Am.Chem.Soc. 107, 5186 (1985)	CH=CHBr	$CH=CHCF_2CF_3$

CLAIMS

1. A compound of formula (I):



(I)

where Het is a 5- or 6-membered heterocyclic ring containing one to three heteroatoms, each independently selected from oxygen, nitrogen and suphur, provided that the ring is not 1,2,3-triazole, the ring being substituted by one, two or three groups R^y; R^1 is hydrogen, formyl, CO-C_{1-4} alkyl, COO-C_{1-4} alkyl, C_{1-4} alkoxy(C_{1-4})alkylene, CO-C_{1-4} alkylenoxy(C_{1-4})alkyl, propargyl or allenyl; R^2, R^3, R^4 and R^5 are each, independently, hydrogen, halogen, methyl or CF_3; each R^6 is, independently, halogen, methyl or CF_3; R^7 is $(Z)_mC{\equiv}C(Y^1)$, $(Z)_mC(Y^1){=}C(Y^2)(Y^3)$ or tri(C_{1-4})alkylsilyl; each R^y is, independently, halogen, C_{1-3} alkyl, C_{1-3} haloalkyl, C_{1-3} alkoxy(C_{1-3})alkylene or cyano; X is O or S; Y^1, Y^2 and Y^3 are each, independently, hydrogen, halogen, C_{1-6} alkyl [optionally substituted by one or more substituents each independently selected from halogen, hydroxy, C_{1-4} alkoxy, C_{1-4} haloalkoxy, C_{1-4} alkylthio, C_{1-4} haloalkylthio, C_{1-4} alkylamino, di(C_{1-4})alkylamino, C_{1-4} alkoxycarbonyl, C_{1-4} alkylcarbonyloxy and tri(C_{1-4})alkylsilyl], C_{2-4} alkenyl [optionally substituted by one or more substituents each independently selected from halogen], C_{2-4} alkynyl [optionally substituted by one or more substituents each independently selected from halogen], C_{3-7} cycloalkyl [optionally substituted by one or more substituents each independently selected from halogen, C_{1-4} alkyl and C_{1-4} haloalkyl] or tri(C_{1-4})alkylsilyl; Z is C_{1-4} alkylene [optionally substituted by one or more substituents each independently selected from hydroxy, cyano, C_{1-4} alkoxy, halogen, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} alkylthio, COOH and COO-C_{1-4} alkyl]; m is 0 or 1; and n is 0, 1 or 2.